



Report to the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, Committee on Homeland Security and Governmental Affairs, U.S. Senate

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May 2008

# FEDERAL REAL PROPERTY

## Corps of Engineers Needs to Improve the Reliability of Its Real Property Disposal Data



G A O

Accountability \* Integrity \* Reliability

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Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE <b>MAY 2008</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2008 to 00-00-2008</b>	
4. TITLE AND SUBTITLE <b>Federal Real Property. Corps of Engineers Needs to Improve the Reliability of Its Real Property Disposal Data</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Government Accountability Office, 441 G Street NW, Washington, DC, 20548</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>38</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



Highlights of [GAO-08-349](#), a report to the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, Committee on Homeland Security and Governmental Affairs, U.S. Senate

## Why GAO Did This Study

Unreliable real property data has been a long-standing problem for federal landholding agencies. Under the President's real property initiative, agencies are being held accountable for, among other things, improving accuracy of their real property inventory and disposing of unneeded property. The U.S. Army Corps of Engineers (Corps), the fourth largest landholding agency, uses the Real Estate Management Information System (REMIS) for recording its civil works inventory. GAO was asked to determine whether REMIS could provide reliable information on the Corps' civil works land disposals from fiscal years 1996 through 2006. GAO's work involved comparison analyses of REMIS disposal data and other Corps reported disposal data, reviews of Corps' real property policies and guidance, and interviews with Corps officials at headquarters, three divisions, four districts, and the Real Estate Systems National Center (RESNC), which manages REMIS.

## What GAO Recommends

GAO recommends that the Department of Defense (DOD) direct the Corps to improve the reliability of REMIS land disposal data, including maintaining effective internal controls, implementing the data normalization best practice in REMIS, clarifying guidance for processing land disposals in REMIS, and providing REMIS training to users. DOD agreed with GAO's recommendations.

To view the full product, including the scope and methodology, click on [GAO-08-349](#). For more information, contact Terrell G. Dorn, (202) 512-2834, [dornt@gao.gov](mailto:dornt@gao.gov).

# FEDERAL REAL PROPERTY

## Corps of Engineers Needs to Improve the Reliability of Its Real Property Disposal Data

### What GAO Found

REMIS did not provide reliable information on the Corps' civil works land disposals from fiscal years 1996 through 2006, or on the land that the Corps owned as of September 30, 2006. Unreliable land disposal data impair the usefulness of REMIS as a record of current inventory and as a source of data that would be useful for budgeting purposes and the strategic management of landholdings. The following contributed to problems with data reliability:

- The Corps did not maintain internal controls over REMIS disposal data. Corps policy held district real estate officials accountable for the reliability of REMIS data, but in two of four districts GAO contacted the individual recording land disposal data was also checking the data against documentation such as titles and transfer forms. Dividing data entry and data checking responsibilities is an essential internal control activity. Corps policy also required division real estate staff to ensure the reliability of REMIS data recorded by their constituent districts, but the three divisions GAO contacted did not review REMIS disposal data.
- The design of the REMIS disposal module, a software application that captures disposal data that users enter, did not follow a best practice, commonly referred to as data normalization. Data normalization organizes data according to rules designed to minimize duplication and redundancies. By not following this best practice, users querying REMIS faced the problem of retrieving inconsistent data. For example, when RESNC officials queried REMIS for specific real property information by district, RESNC officials obtained results that differed from those obtained by district officials.
- Land disposal dates in REMIS were missing or sometimes represented the date when district real estate officials entered the land disposal rather than when the disposal occurred. The vast majority, or about 89 percent, of all disposal records within REMIS did not have disposal dates. When the records contained dates, large numbers of disposals (accounting for about 54,000 acres) in fiscal years 2005 and 2006 had occurred as early as 1955.
- Guidance for processing land disposals in REMIS was unclear. For example, guidance issued in 2004 did not indicate whether some types of disposals, such as transfers to other federal agencies, required a disposal date. New disposal guidance issued in 2007 was also unclear because RESNC, which revised the guidance, did not revise the data entry screens in REMIS. As a result, the guidance and the data entry screens were inconsistent. While the guidance called for entering a disposal date, the REMIS data entry screens did not clearly indicate whether or where users should enter the date.
- RESNC provided limited REMIS training; 3 of 32 districts that use REMIS received introductory training in 2006 and 2007. RESNC plans to train the New England District and at least one other district in 2008. RESNC also sponsored conferences to update systems administrators and other users on key changes to REMIS, but conference presenters discussed aspects of REMIS that some attendees, including real estate officials from 2 of the districts GAO contacted, considered too advanced—especially for those who had never received introductory training.

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## **Abbreviations**

Corps	U.S. Army Corps of Engineers
DOD	Department of Defense
FMFIA	Federal Managers' Financial Integrity Act of 1982
GSA	General Services Administration
OMB	Office of Management and Budget
REMIS	Real Estate Management Information System
RESNC	Real Estate Systems National Center

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United States Government Accountability Office  
Washington, DC 20548

May 9, 2008

The Honorable Tom Carper  
Chairman  
The Honorable Tom Coburn, M.D.  
Ranking Member  
Subcommittee on Federal Financial Management,  
Government Information, Federal Services,  
and International Security  
Committee on Homeland Security and Governmental Affairs  
United States Senate

The U.S. Army Corps of Engineers (Corps), an agency in the Department of Defense (DOD), provides the nation with engineering services such as planning, designing, building, and operating water resources projects. It has a large and diverse portfolio of civil works real property—which includes about 7.7 million acres of land—whose replacement value, estimated at \$217 billion, ranks the Corps as the fourth-largest federal landholding agency.<sup>1</sup> Civil works real property includes hundreds of locks and dams, reservoirs, levees, hydropower facilities, jetties, as well as millions of acres of land used for flood control, recreation, and other purposes.<sup>2</sup>

The federal government has long recognized the need for agencies to track the federal property under their control. In 1983, Executive Order 12411 required federal agencies, including the Corps, to maintain inventories of their federal property. The Corps implemented this order and, in 1992, replaced its existing system with its current Real Estate Management Information System (REMIS). REMIS is a database for recording and updating the Corps' inventory of real property, maintaining historical records, helping decision makers develop future disposal projections, and determining the total amount of civil works land the Corps currently owns,

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<sup>1</sup>General Services Administration, *Fiscal Year 2006 Federal Real Property Report: An Overview of the U.S. Federal Government's Real Property Assets* (Washington, D.C.: July 2007).

<sup>2</sup>The Corps' portfolio also includes military land, such as those properties associated with Department of the Army military installations, but we do not discuss military land in this report.

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among other things.<sup>3</sup> In 2003, the Corps established its Real Estate Systems National Center (RESNC) to manage its real estate automated information systems, including REMIS.

In 2003, we designated federal real property management as a high-risk area for the federal government because federal agencies have faced pervasive problems with unreliable real property data, excess and underutilized real property, deteriorating facilities, and costly leased space.<sup>4</sup> In response to our designation of federal real property management as a high-risk area, the administration initiated several efforts intended to improve the efficiency and effectiveness of the federal government's real property management. In 2004, for example, the President issued Executive Order 13327, which established the Federal Real Property Asset Management Initiative, or real property initiative. The initiative is being used to hold agencies accountable for, among other things, improving the accuracy of their real property inventory and disposing of unneeded property. According to this initiative, maintaining underused or unneeded federal property is costly to the government, not only because agencies may incur operating and maintenance costs, but also because they incur opportunity costs for failing to sell or exchange underused or unneeded properties for more appropriate uses. Under Executive Order 13327, the Office of Budget and Management (OMB) was given the responsibility to, among other things, review agencies' efforts to implement this order. The executive order also established the interagency Federal Real Property Council (Federal Council) to support reform. In December 2004, the Federal Council published 10 guiding principles, which form the strategic objectives for improving real property management. The guiding principles include accurately inventorying and describing all assets, as well as disposing of unneeded assets. In addition, the Federal Council identified 24 data elements—including data on disposal—that federal agencies must report annually for inclusion in the governmentwide real property inventory database, called the Federal Real Property Profile. The Federal Council and federal agencies will use current and historical disposal data to help track and measure federal agencies'

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<sup>3</sup>This report discusses land owned by the federal government; i.e., land for which the United States holds fee simple title.

<sup>4</sup>High-risk areas are those that either have greater vulnerabilities to waste, fraud, abuse, and mismanagement or major challenges associated with their economy, efficiency, or effectiveness. See GAO, *High Risk Series: An Update*, [GAO-03-119](#) (Washington, D.C.: January 2003).

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progress toward strategically managing federal real property and to estimate the costs of future disposals.

Through these efforts, agencies have, among other things, established asset management plans, standardized data reporting, adopted performance measures, and improved the accuracy of their real property data. Having accurate, reliable real property data is important for agencies to cost effectively manage the properties that they need and to identify unneeded properties that they can dispose of and avoid unnecessary costs to the government. Based on efforts and plans by the Corps to enhance the accuracy of its real property profile, OMB approved REMIS as a complete inventory and accurate profile of the Corps' real property holdings in compliance with the Federal Council's guidance. Although OMB relies on the quality assurance and quality control processes performed by individual agencies for such approvals, it also relies on agency Inspectors General, agency financial statements, and our reviews to establish the validity of the data. According to the Corps, REMIS has not been fully validated.

Improving the reliability of federal real property data and expediting the disposal of federally owned land that does not meet the needs of the federal government are priorities of this subcommittee.<sup>5</sup> Therefore, you asked us to provide information about the reliability of the real property data the Corps uses to account for its large portfolio. Specifically, our objective was to determine whether the Corps' real property database, REMIS, could provide reliable information on the civil works land that the Corps disposed of from fiscal year 1996 through fiscal year 2006, or on the civil works land that the Corps owned as of September 30, 2006.

To address this objective, we reviewed documents that defined the Corps' real property disposal process, electronic records, and rationale for disposal decisions. These documents included the Corps' real property policies and guidance, REMIS user/training manual, *Asset Management Plan*, and *Three Year Timeline*—an action plan for implementing the asset management plan and demonstrating that the Corps is using real property inventory data for decision making. To gain a more complete understanding of the Corps' real property disposal process and management of this process, we contacted Corps headquarters officials from the Offices of Real Estate, Corporate Information, and the Chief

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<sup>5</sup>The Subcommittee Chairman and Ranking Member introduced S. 1667 in June 2007.



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Counsel. We also contacted RESNC officials and the contractor that maintained REMIS and supported its users. We contacted 4 of the Corps' 32 district offices—Baltimore, Maryland; Fort Worth, Texas; Los Angeles, California; and Omaha, Nebraska—which maintain REMIS databases from which detailed information could be obtained. We selected these districts because their land disposals accounted for about 82 percent of the acreage that the Corps disposed of from fiscal year 1996 through fiscal year 2006, according to REMIS data. We also contacted the three Corps divisions that oversee these districts—North Atlantic, New York, New York; Northwestern, Portland, Oregon; and Southwestern, Dallas, Texas. We spoke with responsible district and division officials about the REMIS land disposal process, including REMIS data entry, reviews, training, and oversight, among other things. Additionally, we visited the Baltimore and Los Angeles Districts because, according to Corps headquarters officials, officials in these districts could provide insights into REMIS and its accuracy. Specifically, the headquarters officials said that the officials in the Baltimore District were very knowledgeable about the REMIS disposal process while officials in the Los Angeles District had recently completed an inventory of the district's entire real property holdings.

We took several steps to assess the reliability of REMIS disposal data, although we did not have direct access to REMIS. At our request, the Corps queried data on land disposals from the REMIS database to provide us data, including the numbers of land tract disposal records and of land tract disposal dates by district. To assess the reliability of these data, we performed electronic testing to identify missing data, dates outside the time frame of our request, and duplicates. Because these data indicated that most land disposals occurred during fiscal years 2005 and 2006, we focused on these fiscal years and had three districts cross-check their land tract disposal data against their real estate documentation. We also conducted limited cross-checking of these data against disposal records at the Baltimore District office. Based on this work, we found that the REMIS land disposal data were not reliable because of inconsistencies among the disposal data files that the Corps provided, a significant number of missing disposal dates, and inaccurate current inventory data. Finally, we obtained the Corps' policies, procedures, and guidance for processing land disposals in REMIS and compared them with standards for internal

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control in the federal government,<sup>6</sup> as well as other control guidance related to control activities, environment, and training.<sup>7</sup> We also spoke with Corps officials about how they interpreted and implemented internal controls with respect to REMIS.

We conducted this performance audit from December 2006 to May 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. Further details about our objective, scope, and methodology appear in appendix I.

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## Results in Brief

REMISS did not provide reliable information on the Corps' civil works land disposals from fiscal year 1996 through fiscal year 2006, or on the land that the Corps owned as of September 30, 2006. Unreliable land disposal data impair the usefulness of REMIS as a record of current inventory and as a source of data that would be useful to Corps decision makers for budgeting and strategic land management purposes. The following contributed to problems with data reliability:

- District and division officials did not maintain effective internal controls over REMIS disposal data. According to the Corps' policy, district real estate officials are accountable for the reliability of the real property data recorded while division officials provide the oversight necessary to ensure that their constituent districts record reliable data.<sup>8</sup> Real estate officials in two districts told us, however, that the person who recorded land disposal

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<sup>6</sup>GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999). These standards, issued pursuant to the requirements of the Federal Managers' Financial Integrity Act of 1982 (FMFIA), provide the overall framework for establishing and maintaining internal control in the federal government. OMB Circular No. A-123 (Revised), *Management's Responsibility for Internal Control*, dated December 21, 2004, incorporated the GAO internal control requirements.

<sup>7</sup>GAO: *Internal Control Management and Evaluation Tool*, [GAO-01-1008G](#) (Washington, D.C.: August 2001).

<sup>8</sup>Specifically, Engineering Circular 405-1-02, *Project Inventory Management, Accountability and Documentation*, March 1, 2004, and Engineering Circular 405-1-13, *Validation Process and Historical Files*, December 30, 2003. These two documents are among many other Corps real estate policies.

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data into REMIS was the same person responsible for checking that the REMIS data matched the real estate documentation, such as deeds, titles, and transfer forms. According to the standards for internal control in the federal government, dividing the data entry and data checking responsibilities between different people is an essential internal control activity, referred to as segregation of duties. The three divisions we contacted did not perform the reviews necessary to ensure that their constituent districts recorded reliable REMIS disposal data. Officials at one division cited prolonged staffing shortages as the reason for not performing the reviews, while officials at another division relied on verbal assurances from district officials that real property data were reliable. Officials in a third division annually reviewed the disposal files of their constituent districts, but their reviews focused on financial aspects and compliance with applicable statutes, among other things, rather than on the reliability of REMIS disposal data.

- The design of the REMIS disposal module, a software application that captures disposal data that users enter, did not follow a software engineering best practice, commonly referred to as data normalization. Data normalization is the process of organizing data in a database according to rules designed to protect the data from duplication and redundancy. Redundant data can create database problems, especially for large databases such as REMIS. If users must enter disposal dates in one place, then users must consistently enter disposal dates in all the other places where these dates are stored within the database—a process prone to errors. Since REMIS users could enter disposal dates in more than one place in the database, and because the database was not in normalized form, persons querying the database could potentially retrieve inconsistent data given that disposal dates were not consistently entered in all places. For example, when RESNC officials queried REMIS for specific real property information by district, the RESNC officials obtained results that differed from those obtained separately by district officials. District officials subsequently called on RESNC officials to clarify the query RESNC used for retrieving the real property data in REMIS. In contrast, a database in normalized form would allow any user to query REMIS for disposal information and obtain the same result.
- REMIS land disposal dates were missing or the data sometimes represented the date when district real estate officials entered the land disposal in the database rather than when the disposal actually occurred. The vast majority of all disposal records within REMIS did not have a disposal date. Of about 30,700 total disposal records, 27,400 (89 percent) were missing disposal dates. When the records contained dates, we found through our analysis of REMIS land disposal data from fiscal year 1996 through fiscal year 2006 that large numbers of disposals recorded in fiscal

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years 2005 and 2006 (accounting for about 54,000 acres of land) had occurred as early as 1955. Officials from two districts consistently said that the large numbers of disposals were not current disposals at all, but rather reflected database adjustments to identify land that had been previously disposed of. Corps officials lacked assurances that REMIS reflected the Corps current inventory because they did not know whether all of the Corps' 32 districts had (1) entered data into REMIS on all of the land tracts from their active civil works projects and (2) made adjustments to REMIS to reflect land disposals that had occurred years ago. Additionally, we found discrepancies between the REMIS land disposal data that the Corps reported in its *Three Year Timeline* and in the Federal Real Property Profile in fiscal year 2006. These discrepancies raised concerns about the Corps' use of REMIS for budgeting and strategic land management purposes.

- Guidance for processing land disposals in REMIS—one document issued in 2004, then updated in 2006, and further revised in 2007—was unclear. The 2004 guidance did not indicate whether some types of land disposals, such as transfers to other federal agencies, required a disposal date. The 2006 guidance incorporated new federal reporting requirements and required a date for all disposals but did not tell users how to complete the process for disposing of land in REMIS. Finally, the 2007 guidance was inconsistent with data entry screens in the REMIS disposal module. This inconsistency occurred because RESNC did not revise the data entry screens to reflect the changes it had made in the 2007 guidance. Consequently, the guidance required users to enter the disposal date in a screen that indicated the date was optional. At the same time, the guidance described as optional the use of a second screen that indicated the disposal date was required.
- RESNC provided REMIS introductory training in 2006 and 2007 to 3 of 32 districts that had requested training for their new staff. With limited instructors and funding, RESNC plans to train the New England District and at least one other district in 2008. RESNC also sponsored conferences to update systems administrators and other users on key changes to the database, but conference presenters discussed aspects of REMIS that some attendees, including real estate officials from 2 districts we contacted, considered too advanced—especially for those who had never received introductory training. In addition, among REMIS users within the 4 districts we contacted, about 24 have not received introductory, hands-on training, while approximately 39 have received the training. None of the daily REMIS users have received periodic refresher training.

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To improve the reliability of REMIS land disposal data, we recommend that the Secretary of Defense direct the Commanding General and Chief of Engineers of the U.S. Army Corps of Engineers to (1) implement effective internal controls, (2) implement the data normalization best practice in the REMIS database for disposal dates, (3) correct REMIS disposal records, (4) issue clear guidance for entering land disposal dates in the REMIS land disposal process, and (5) provide and require introductory and periodic refresher training that covers how to correctly enter land disposal dates in REMIS. DOD agreed with all the recommendations made in this report.

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## Background

The Corps began using REMIS, the official real property inventory database, in 1992. The Corps modified REMIS several times over the years to track real estate matters such as revenues from sales of real property, property locations by congressional district, and properties that are civil works. About 1,000 REMIS users located in 32 of the 38 Corps districts access the database through the Internet.<sup>9</sup> District users are responsible for collecting data from real estate documents and entering data into REMIS.

The Corps established RESNC at its Mobile, Alabama, District office in October 2003 to serve as the center for the Corps' real estate automated information systems, including REMIS. Among other things, RESNC officials serve as real estate subject matter experts, issue guidance to process land disposals in REMIS, train district users, and manage REMIS. RESNC also oversees a contractor who performs maintenance on REMIS, runs database queries, helps REMIS users through a hotline, and makes numerous changes to REMIS. Although the contractor did not design the previous REMIS disposal module (a software application that captures data entered into REMIS by a user), it redesigned the REMIS disposal module to automatically provide the Corps' financial management system with the amounts of disposed acreage, as well as to automate other tasks when users completed the disposal process in REMIS. The Corps implemented the redesigned module in October 2007.

Corps headquarters carries out the overall management of civil works real property related to navigation, hydropower, recreation, and flood control

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<sup>9</sup>The Corps has 38 districts under the purview of eight civil works divisions. Thirty-two districts maintain real estate offices that perform functions for the remaining 6 districts, whose real estate portfolios are sufficiently small that they do not merit a real estate office of their own.

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projects, among others.<sup>10</sup> Figure 1 shows one of many dams owned by the Corps.

**Figure 1: The Bluestone Dam, West Virginia**



Source: U.S. Army Corps of Engineers.

Headquarters officials coordinate with eight civil works divisions and 38 districts around the country on matters that include developing future funding requirements using real property data from REMIS. For example, REMIS disposal data from past years are to allow Corps managers to estimate future disposal costs. Besides the headquarters team, real estate officials at each of the divisions oversee the civil works projects and activities of their constituent districts. District real estate chiefs, specialists, and systems administrators, among other district officials, provide daily management of real property, including land acquisition for new civil works projects, operations and maintenance of existing projects,

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<sup>10</sup>The headquarters senior real property management team includes the Chief of Real Estate, a Senior Steering Committee, and a Chief of Operations.

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disposal of unneeded civil works land, and recording of data on land acquisitions, disposals, and other actions.

Executive Order 13327 of February 2004 required federal landholding agencies, including the Corps, to determine what they own, what they need, and what it costs to manage their real property; develop and implement asset management plans; and dispose of unneeded properties. The executive order established the interagency Federal Council to develop the guidance necessary to implement the order and serve as a clearinghouse for best practices, among other things. The Federal Council developed and published in December 2004 *Guidance for Improved Asset Management* that identified, defined, and listed 23 data elements that federal agencies must report to the General Services Administration (GSA) for the annual Federal Real Property Profile. In August 2006, the Federal Council added disposal as the 24th data element that federal agencies must report for the annual profile beginning in fiscal year 2006. OMB, the Federal Council, and agencies use disposal data to help track how much property that the federal government has disposed of, measure the government's progress in disposing of its unneeded property, and estimate the costs of future disposals.

The Federal Council guidance specifically requires the Corps and other federal landholding agencies to report, among other things, disposal dates based on the type of disposal; that is, land sales should record deed dates, land transfers between federal agencies should record the dates of transfer letters, and public benefit conveyances to nonfederal entities should record the date of the assignment letter to the sponsoring agency and the subsequent date of the deed's transfer to the grantee. In addition, the guidance requires the agencies to report the disposal date in the fiscal year that the property exited the agency's inventory. On the administration's agency scorecard for real property management—established in fiscal year 2004 to measure each agency's progress toward implementing Executive Order 13327—the Corps has achieved a “yellow” status, indicating that it has made progress in strategically managing real property by taking the following actions: designating a senior real property officer who is held accountable for the effective management of the Corps' real property; developing an OMB-approved asset management plan;<sup>11</sup> developing an

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<sup>11</sup>An asset management plan lays out an agency's plan to promote the efficient use of its real property assets by, among other things, accurately inventorying and describing its assets, aligning its assets with its mission, and disposing of unneeded assets.

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OMB-approved 3-year time line,<sup>12</sup> establishing some asset management performance measures; completing and maintaining an inventory and profile of the Corps' real property; and providing timely information for inclusion into the annual Federal Real Property Profile.

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## The Corps' Land Disposal Data from Fiscal Year 1996 through Fiscal Year 2006 Are Unreliable

REMIS did not provide reliable information on the Corps' civil works land disposals from fiscal year 1996 through fiscal year 2006, or on the land that the Corps owned as of September 30, 2006, for several reasons. These reasons include poorly maintained internal controls over REMIS disposal data at various levels of the Corps' organization, a database design that did not follow a software engineering best practice, and land disposal dates that did not accurately indicate when the disposal took place. In addition, unclear guidance for processing land disposals in REMIS coupled with a limited user-training program contributed to the unreliability of the disposal data. These unreliable data impair the usefulness of REMIS as a record of current inventory and as a source of data that would be useful to Corps decision makers for budgeting and strategic land management purposes.

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## Districts and Divisions Did Not Maintain Effective Internal Controls over REMIS Data

Real estate officials in districts and divisions did not maintain effective internal controls over REMIS disposal data. Maintaining effective internal controls throughout an organization is an ongoing effort that helps to detect and prevent errors in data, such as real property data in REMIS. The standards for internal control in the federal government provide the overall framework for federal managers to establish and maintain effective internal control. Internal control activities include assigning different people to check data from those who record it—referred to as segregation of duties—recording transactions in a timely manner, and reviewing the data for reliability.

The Corps' policy requires real estate officials to be accountable for the reliability (i.e., accuracy, completeness, and timeliness) of REMIS data related to land located in their districts. Officials in two districts, including one district that made about 300 disposals accounting for over 34,000

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<sup>12</sup>A 3-year time line is an action plan for implementing the asset management plan and identifies the steps the agency will take to demonstrate that decisions are regularly made using real property data. The Corps' *Three Year Timeline* identified four areas that include investments, operating costs, real property disposal, and compliance with the federal real property requirements.



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acres of land during fiscal years 1996 through 2006,<sup>13</sup> told us that the same person who recorded land disposal data in REMIS was also the one who checked that the data matched the real estate documentation, such as deeds, titles, and transfer forms. Making one individual responsible for both recording and checking data can contribute to errors. Corps officials in a third district told us that they divided these responsibilities and provided documentation of recent efforts to independently check the REMIS disposal records against the real estate documentation.

In addition, some districts did not always record the disposal in REMIS in a timely manner as the standards for internal control in the federal government and the Corps' policy require. For example, when we compared REMIS disposal dates against the dates when the Deputy Assistant Secretary of the Army approved the disposals, we found instances in which districts recorded land disposals more than 2 years after the disposal transaction had occurred. One district, for instance, recorded the disposal of a 3-acre land parcel near York, Pennsylvania, in March 2006. The disposal had occurred in February 2004—more than 2 years earlier. Another district recorded a land disposal in Georgia as November 2005, but the disposal occurred 16 months earlier.

Although the Corps' policy requires division officials to provide the oversight necessary to ensure that their constituent districts recorded reliable real property data, officials we contacted in all three divisions did not perform activities that would ensure the reliability of REMIS disposal data. The Northwestern Division, for example, experienced prolonged staffing shortages that hindered it from reviewing any disposal records. According to the division's Acting Chief of Real Estate, a team consisting of a Chief of Real Estate and four other real estate officials oversees the real property activities of the division's five constituent districts—Kansas City, Omaha, Walla Walla, Portland, and Seattle. Specifically, the four real estate officials oversee (1) acquisitions, (2) appraisals, (3) recruiting, and (4) management and disposal activities, respectively. However, because the management and disposal position remained vacant for nearly 2 years, the division did not review any REMIS disposal data during that period.<sup>14</sup> Corps officials at headquarters confirmed in December 2007 that the position remained vacant.

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<sup>13</sup>According to REMIS disposal data.

<sup>14</sup>Officials explained that the management aspect of this position included overseeing outgrants (i.e., special leases), revenue collections, and permits.

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Officials in the North Atlantic Division also said they did not review any REMIS disposal data from their five constituent districts (New England, New York, Philadelphia, Baltimore, and Norfolk). They said that during their annual visits to each of their districts, they reviewed real estate documentation for completeness and compliance with applicable statutes, but relied solely on verbal assurances from district officials that they had accurately recorded all disposals in REMIS. In the view of North Atlantic Division officials, Corps-wide organizational changes have affected their reviewing practices. Specifically, the Corps' strategic plan through 2012 called on the divisions to establish multiple district support teams to provide technical assistance to the districts, such as quality control and assurance activities. However, the North Atlantic Division was only provided sufficient staff for one team.<sup>15</sup> Instead of reviewing all district disposal records for completeness and accuracy, as district officials once did, they now review only some of the records. The officials acknowledged that this change could affect the reliability of the disposal data, yet they believed that the DOD Inspector General, the Army Audit Agency, or the Corps headquarters auditors would identify and resolve any errors.

Officials in the Southwestern Division also visited their four constituent districts (Little Rock, Tulsa, Fort Worth, and Galveston) each year to review disposal records but did not review REMIS disposal data. As part of their annual review, division officials requested that each district complete a quality assurance questionnaire focusing on financial aspects, compliance with statutes, and revenue collections, among other things. The questionnaire included one question about whether officials successfully completed civil works disposal activities but did not include a question about the reliability of REMIS disposal data. Essentially, the Southwestern Division relied on assurances from district officials that they accurately entered all disposals in REMIS. Obtaining assurances does not ensure REMIS data are reliable; other internal control activities are necessary such as those identified in the standards for internal control in the federal government.<sup>16</sup> The Corps policy does little to highlight those other control activities, however. Instead, the policy places oversight responsibilities on the divisions without detailing the specific steps they should take to ensure REMIS disposal data are reliable.

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<sup>15</sup>U.S. Army Corps of Engineers 2012, *Aligning the U.S. Army Corps of Engineers for Success in the 21st Century*, October 2003.

<sup>16</sup>For example, these control activities include accurate and recording of transactions, as well as accountability of records.

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## REMIS Disposal Module Did Not Follow a Best Practice That Protects Against Duplication and Redundancy

The REMIS disposal module—a software application that captures disposal dates and other disposal information—did not follow a software engineering best practice, commonly referred to as data normalization. Data normalization is the process of organizing data in a database according to rules designed to protect the data from duplication and redundancy. Redundant data can create problems for databases, such as REMIS. If users must enter disposal dates in one place, then users must consistently enter disposal dates in all the other places where these dates are stored within the database—a process prone to errors.

Land disposal dates could be entered in more than one place in REMIS, a design artifact that neither RESNC nor the REMIS contractor could explain. Because REMIS's database design did not follow the best practice, persons querying the database could potentially retrieve inconsistent data given that disposal dates were not consistently entered in all places. For example, RESNC officials queried REMIS for a compilation of specific real property information, including data on disposals, for all districts. However, the results RESNC officials obtained differed from the results obtained separately by district officials, who later called on RESNC officials to clarify the query RESNC used for retrieving real property data in REMIS on their district. This situation illustrates one of the problems users of the nonnormalized database faced. The design of the REMIS disposal module, which allowed users to enter disposal dates in multiple places, required users to know the location of disposal data within the database and how to write the query that would produce the desired result. In contrast, REMIS in normalized form would allow any user to query the database for disposal information and obtain the same result.

Although the REMIS contractor redesigned the REMIS disposal module to automatically generate certain data, the redesigned disposal module continues to capture disposal dates in two places within the database. We discussed this matter with the Corps' Chief Information Officer, who concurred that REMIS, with respect to land disposal dates, was not in a normalized form.

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## Land Disposal Dates Were Missing or Sometimes Did Not Represent When the Disposal Took Place

Land disposal dates in REMIS were unreliable, since the vast majority of them were missing, and when disposal dates were present, they sometimes represented the date when district real estate officials entered the land disposal into REMIS rather than the date when the disposal took place. Our analysis found that unreliable land disposal dates impair the usefulness of REMIS as a historical record for researching past real estate

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transactions, as a record of current inventory, and as a source of data for developing baselines and trend data for budgeting and strategic management of land disposals.

We found that the vast majority of disposal records in REMIS did not have a disposal date.<sup>17</sup> To determine the extent to which disposal dates were available for use in our analyses, we requested from RESNC and the REMIS contractor a report containing the total number of civil works land records listed in REMIS as disposed, as well as the number of those records that were missing disposal dates. The report showed that of the about 30,700 disposal records in REMIS, 27,400 (89 percent) were missing disposal dates.<sup>18</sup> The contractor reviewed our preliminary findings and agreed that the missing dates were troublesome.

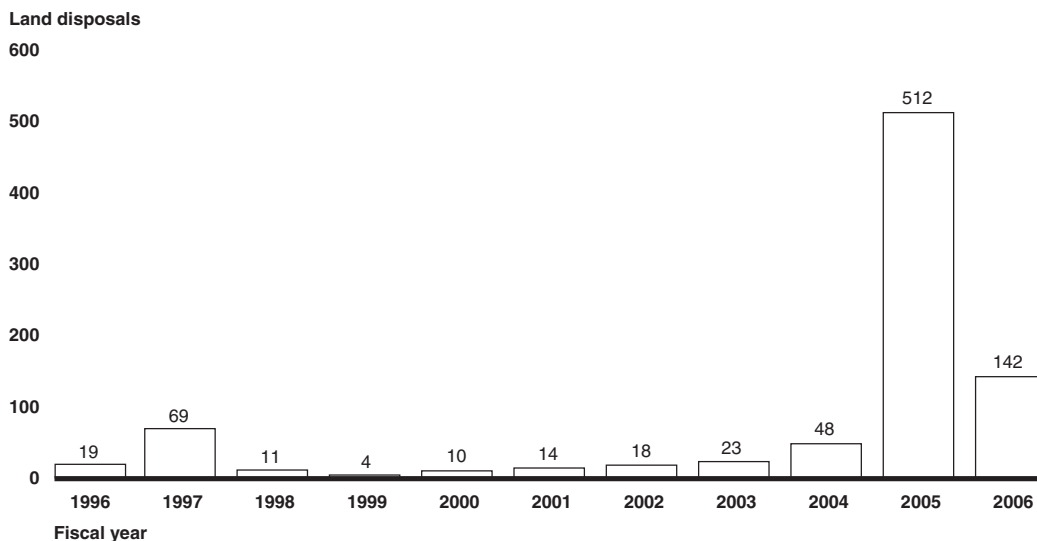
Figure 2 summarizes our analysis of the REMIS data RESNC provided to us that contained disposal dates. The data show a small number of civil works land disposals in fiscal years 1996 through 2004 followed by a sharp increase in the numbers of disposals in fiscal years 2005 and 2006.

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<sup>17</sup>The disposal records consisted of individual land tracts that were either fully or partially disposed. Partial land disposal involves only a portion of a land tract. The Corps uses the term “tract” to identify each separate land parcel requiring ownership documentation, usually a title.

<sup>18</sup>While about 89 percent of the disposal records lacked dates, we did not perform any analysis with respect to which land disposal records were missing dates. The Corps noted that the design of the original REMIS land disposal module did not contain a disposal date field. As a result, numerous land disposals were entered without a disposal date for a number of years. Nonetheless, this figure represents the current condition of land disposal dates in REMIS.

**Figure 2: Number of Civil Works Land Disposals from Fiscal Year 1996 through Fiscal Year 2006**



Source: GAO presentation of U.S. Army Corps of Engineers data.

Note: Due to data reliability concerns discussed in this report, the large increase in land disposals were due to corrections to the inventory rather than actual disposals.

The Corps' real estate managers at headquarters could not explain the reason for the large numbers of disposals in fiscal years 2005 and 2006, which account for about 54,000 acres of land. However, officials we contacted from two districts said that many of these disposals represented corrections to the inventory rather than current disposals. Specifically, all 265 land disposals (totaling about 33,000 acres of land) that the Fort Worth District entered into REMIS in fiscal year 2005 were disposals that had occurred in 1975. The Fort Worth District also entered 29 land disposals (totaling about 980 acres) in fiscal year 2006—almost all of which, according to a district real estate official, had occurred from about 1955 through 2003. Similarly, in the Baltimore District, we compared data in REMIS against the real estate documentation and found that at least 12 of 23 land disposals the district had entered in fiscal years 2005 and 2006 (totaling about 137 acres) had occurred in the 1980s.

Corps officials explained that these adjustments to the REMIS disposal data were necessary to complete a process that began in 1992 when the Corps implemented REMIS. According to district officials, they began entering land acquisition information into REMIS from real estate documentation for their active civil works projects—even if some of the land associated with these projects had already been disposed of—and

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planned to make record adjustments that would identify previously disposed land tracts. The Corps chose this method to maintain consistency with the real estate documentation and to help reconcile REMIS with the Corps' financial management system.<sup>19</sup>

While we support consistency between REMIS and real estate documentation, we are concerned that the Corps current inventory of land tracts is not accurate, in part because the Corps lacks assurance that its districts have updated REMIS to identify in its inventory all of the disposed land tracts. Specifically, Corps officials told us that they did not know whether all of the Corps' 32 districts have (1) entered into REMIS all of the land tracts from their active civil works projects and (2) made record adjustments to identify, as disposed, in REMIS, all of the previously disposed land tracts. In August 1994, the Corps gave the districts about a year to enter, among other things, the land tracts data. Because the task was substantial—covering all real estate documentation for many years—some districts utilized their entire real estate staff to enter real property data into REMIS. Once the staff entered these data, the districts were to begin identifying, as disposed, land tracts in REMIS that had previously been disposed of. However, according to RESNC officials, the districts have not made all of these changes. Moreover, the DOD Inspector General reported in 2005 that districts were not entering new disposals of land tracts into REMIS. In response, the Corps directed the districts to identify disposals of land tracts that remained in REMIS and update the database accordingly. As previously discussed, updating has continued. Consequently, although the Corps is taking corrective action, its lack of assurance that all of the disposed land tracts have been identified as such in REMIS adds to the uncertainty regarding the accuracy of the Corps' current inventory of land tracts within the database.

Recognizing that mistakes can occur when entering data into REMIS, the Corps introduced a code in September 2006 that allows users to identify administrative disposals and distinguish these disposals from actual disposals. This code would be useful if, for example, a user had entered the acreage of a land tract into REMIS by mistake and needed to dispose

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<sup>19</sup>The DOD Inspector General and the U.S. Army Audit Agency conducted numerous audits on the Corps' financial accounting system as it relates to portions of balance sheet reporting for the Civil Works mission of the Corps. In December 2005, the Corps indicated that it had corrected the material deficiencies identified in the DOD Inspector General financial audit reports and asserted its readiness for an external auditor to audit its financial statements.

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of acreage without having the disposal reported to the Federal Real Property Profile or any other disposal report. Hence, the new code is a positive step toward improving the accuracy of REMIS data. However, unless the Corps corrects past disposal records to reflect the date of the actual disposal rather than the date of the record entry, REMIS will have limited usefulness as a tool for the Corps to assess its progress in disposing of land, consistent with the administration's goals, as well as to understand disposal trends. As it stands, decision makers using REMIS data cannot distinguish between disposal dates that indicate when disposals were entered into REMIS and dates of disposals that actually occurred from fiscal year 1996 through fiscal year 2006.

Under the President's Real Property Asset Management Initiative, landholding agencies are accountable for meeting key milestones and performance outcomes. Accurate data describing the Corps' disposals are essential to reporting its results, as well as the combined results of other landholding agencies. For example, the administration has a governmentwide goal for federal agencies, including the Corps, to dispose of \$9 billion in unneeded assets by 2009, for which federal agencies reported disposing of about \$4.5 billion since 2004. However, the Corps' and the agencies' progress toward the goal is unclear, because, as explained previously, the Corps' disposal data are not accurate, and the reliability of disposal data in REMIS is unclear. Furthermore, deficiencies in the Corps' disposal data mean that the Corps lacks accurate baseline and annual data for tracking and analyzing trends in disposals and identifying opportunities to improve its performance. Finally, inaccurate disposal data limit the accuracy of the Corps' and the government's valuations of their real property assets, as well as the accuracy of any financial reports that include these valuations.

Additionally, we found discrepancies in the land disposal data that the Corps queried from REMIS and reported in its *Three Year Timeline* and the Federal Real Property Profile in fiscal year 2006. The OMB-approved *Three Year Timeline* of April 2007 highlighted, among other things, the Corps' progress in disposing of unneeded real property. The *Three Year Timeline* is an action plan that established the schedule for achieving the Corps' real property goals identified in its *Asset Management Plan* and analyzed the number of land disposals from 1996 through 2006 using REMIS disposal data. The data from past disposals enabled the Corps' decision makers to make disposal-budget estimates by calculating the average cost per disposal. We found the following two key discrepancies:

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- First, according to the *Three Year Timeline*, the Corps disposed of 184 land tracts in fiscal year 2006 and continued a trend of elevated disposal numbers.<sup>20</sup> This information contradicted what Corps officials told us. They said that little, if any, land is available for disposal because the Corps reduced its landholdings years ago in response to several executive orders. Another official who works in the office that manually tracks, verifies, and reports all Corps disposals to the Deputy Assistant Secretary for the Army told us that the Corps' land disposal numbers were down from previous years. Our analysis of REMIS data identified 153 land disposals in fiscal year 2006, as shown in figure 2. Since both these land disposal numbers were based on REMIS data, the numbers should have agreed; however, they differed by 31, or about 20 percent. This discrepancy indicated a data reliability problem and raised questions about the Corps' disposal-budget estimates. If the data overstated the actual number of disposals, then the Corps underestimated the average cost per disposal. This could lead to budgeting and staffing shortfalls in future years.
  - Second, the Corps submitted 84 land disposals to GSA for the fiscal year 2006 Federal Real Property Profile—a number much lower than presented in the *Three Year Timeline* and in the data provided to us.<sup>21</sup> This number, however, did not accurately reflect how many disposals occurred. We found that at least 8 of the 84 disposals, or about 10 percent, had occurred in previous years and were erroneously entered into REMIS in fiscal year 2006 when the Corps adjusted inventory records. In addition, we learned that the Corps did not include partial land tract disposals in its submission for the profile. According to the REMIS contractor that assembled the submission, partial land tract disposals—the disposal of a portion of a land tract—were not included because conflicts would arise when the submission contained both owned and disposed land tracts with the same unique identifier numbers. To reconcile the differences among the 2006 Federal Real Property Profile, the *Three Year Timeline*, and the REMIS data files provided to us, we obtained the REMIS data file that contained the fiscal year 2006 partial land disposals. We identified 39 partial land tract disposals that could account for some, but not all, of the differences among the three data files.

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<sup>20</sup>In order to compare the *Three Year Timeline* data to our REMIS files, we adjusted the time line data to fiscal year using the Corps' source data.

<sup>21</sup>The *Three Year Timeline* data for fiscal year 2006 contained 184 disposals. The REMIS data we received from RESNC contained 153 disposals.

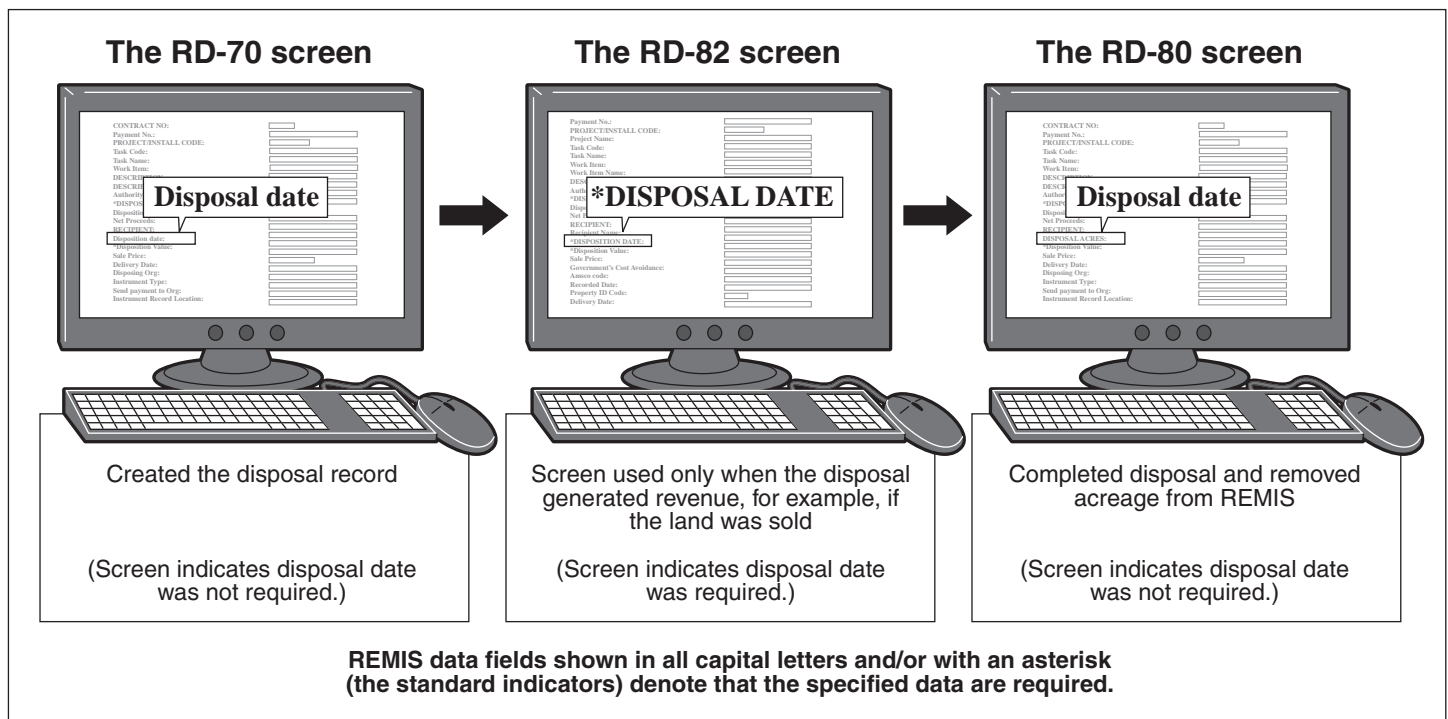


Unreliable land disposal dates impaired—and continue to impair—the usefulness of REMIS as an accurate (1) expression of the Corps’ current inventory and (2) source of data for the Federal Real Property Profile. If land disposal data in REMIS do not accurately reflect actual disposals, the Corps risks overstating the amount of land it currently holds, which could affect the land values reported in its annual financial statements and could cause understatement of the amount of land it actually disposed of in any year.

## REMIS Disposal Guidance Was Unclear

Guidance for processing land disposals in REMIS—one round of guidance issued in 2004, then updated in 2006, and further revised in 2007—was unclear. In April 2004, RESNC issued guidance that provided step-by-step instructions for processing land disposals in REMIS but did not require users to enter disposal dates. Figure 3 shows the process for entering land disposal data into REMIS in 2004.

**Figure 3: The Process for Entering Land Disposal Data in REMIS Outlined in the 2004 Guidance**



Sources: GAO and U.S. Army Corps of Engineers.

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Users entered data in three steps using the RD-70, the RD-82, and the RD-80 data entry screens. First, users created a land disposal record using the RD-70 screen and entered information identifying the land being disposed of. Second, if the land disposal generated revenue, users accessed the RD-82 screen to enter information about the disposal method and date, among other things. The guidance required this information, and the Corps used specially marked data fields to identify it as required. Third, users completed the disposal record after entering additional information, such as the amount of acreage being disposed of, in the RD-80 screen.

REMIS data entry screens use standard indicators to denote required data fields<sup>22</sup>—all capital letters for the data field name, an asterisk next to the field name, or both. In figure 3, for example, the RD-82 screen uses both capital letters and an asterisk to indicate that the disposal date is a required data field. While the RD-70 screen had a field for the disposal date, it was not a required field for this screen. The 2004 guidance emphasized that users should enter data into the RD-82 screen if the disposal generated revenue, but it was unclear whether users should also enter the data in this screen for other types of disposals, such as transfers to other federal agencies. While both the RD-70 and the RD-82 screens had disposal date fields, only the RD-82 screen required the disposal date field.

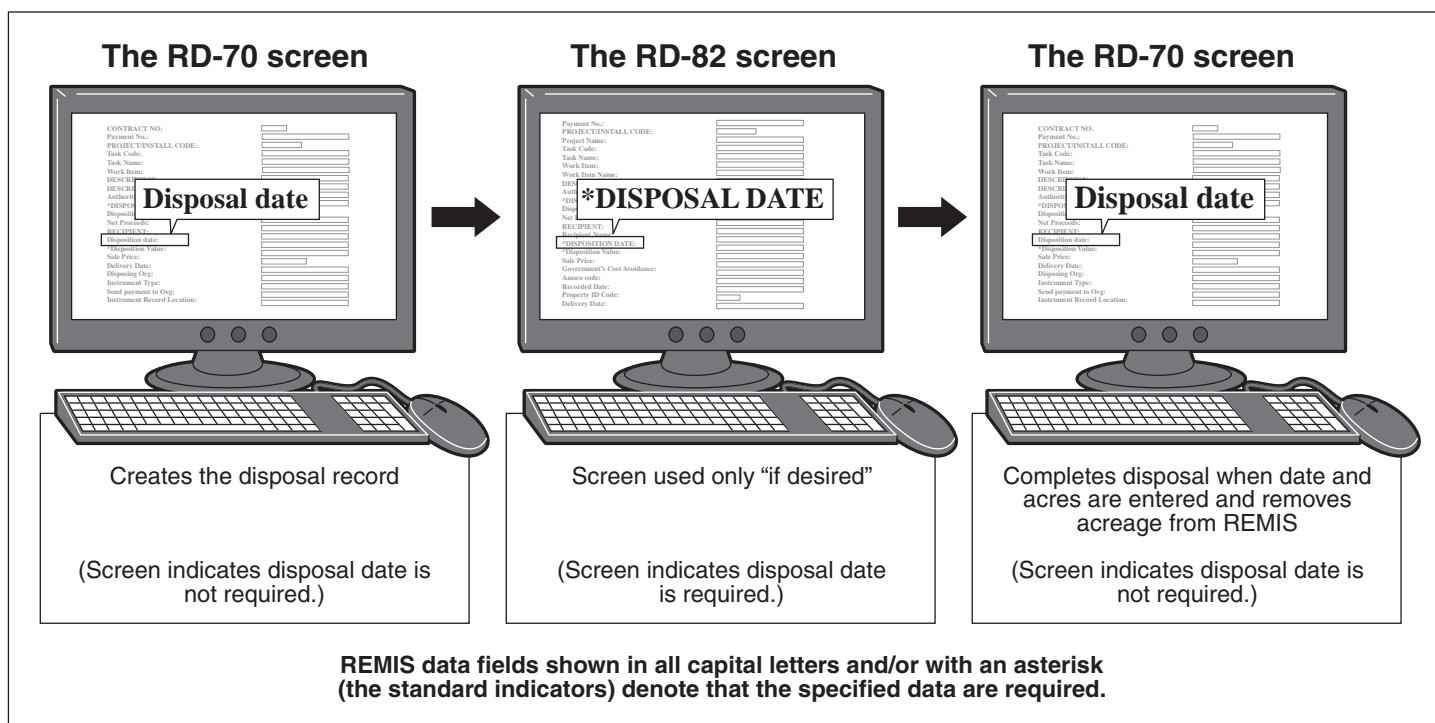
RESNC officials updated the guidance in September 2006 after the Federal Council decided that federal landholding agencies must report disposals. However, the 2006 guidance did not emphasize the importance of using specific disposal dates for different types of disposals. The updated guidance reduced the land disposal process from three steps to two (users entered data into the RD-70 and the RD-82 screens), eliminated the RD-80 screen after incorporating its functions into the RD-70 screen, and required the RD-82 screen for all disposals. However, the guidance did not clearly indicate which data entry screen—RD-70 or RD-82—completed the process of recording a land disposal. While both screens included fields for disposal dates, each continued to store data in a separate place within REMIS—a practice that resulted in a nonnormalized database and the associated problems we previously discussed. Having the disposal dates in both the RD-70 and the RD-82 screens illustrates the lack of data normalization.

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<sup>22</sup>Required data fields are those fields into which the user must insert data in order to save the contents of the screen into REMIS.

RESNC issued a third round of guidance in August 2007 that described a new REMIS disposal process. According to this guidance, users should create a disposal record in the RD-70 screen (but not enter the disposal date and quantity of land), continue to the RD-82 screen “if desired,” and return to the RD-70 screen to enter the disposal date and the amount of land disposed as the final step in the REMIS disposal process. Figure 4 shows the new process.

**Figure 4: The Process for Entering Land Disposal Data in REMIS Outlined in the 2007 Guidance**



Sources: GAO and U.S. Army Corps of Engineers.

When RESNC issued the 2007 guidance, it did not update the REMIS data entry screens to match the guidance—that is, it did not identify the required data fields using the standard indicators. This inconsistency between the new guidance and the REMIS screens created the following two opportunities for users to be confused:

- The 2007 guidance required users to enter disposal dates in the RD-70 screen, but the disposal date field in this screen lacked the standard indicators used to identify a required data field. Recognizing that users could be confused about whether they should enter the disposal date into

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the RD-70 screen, RESNC officials said they are discussing ways to resolve the confusion.

- The 2007 guidance instructed REMIS users to enter data in the RD-82 screen, “if desired.” Although use of this screen was *optional*, it was the only screen with a *required* data field for the disposal date, identified by the standard indicators. According to officials in three of the four districts we contacted, they used the RD- 82 screen to enter the disposal date. Moreover, real estate officials in all four districts noted that the RD-82 screen is the only REMIS screen that requires the disposal date. Conversely, RESNC officials told us that they believe that other REMIS screens already collect the data captured by the RD-82 screen. Consequently, RESNC officials are evaluating the need for the RD-82 screen.

Unclear guidance affects the reliability of disposal data because it could lead to differences in how users process disposals in REMIS. Until the Corps develops clear and consistent REMIS guidance and screens for processing land disposals, the reliability of future disposal data could be at risk.

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### Limited Training Provided to REMIS Users and Systems Administrators

Although RESNC officials view REMIS as a user-friendly database that requires minimal training to use, we found data reliability issues indicating that users may not be receiving the training necessary to enter disposal data in a reliable manner. The standards for internal control in the federal government state that federal managers should demonstrate a commitment to the competence of their employees and provide employees with the training they need to accomplish their assigned duties. According to RESNC officials, REMIS users received introductory training when the Corps implemented the database in 1992. In addition, RESNC officials provided introductory training to 3 of 32 districts that use REMIS in 2006 and 2007. Specifically, they provided training to the Kansas City District in 2006 and to the Norfolk and Memphis Districts in 2007 upon requests from those districts for their new staff. With limited instructors and funding, RESNC plans to train the New England District and at least one other district in 2008.

To its credit, RESNC has sponsored two informational conferences since 2005 for the districts’ systems administrators—those who maintain the REMIS database for their respective districts—and other REMIS users. At these conferences, presenters discussed technical changes to REMIS and the business processes that some attendees considered too advanced—

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particularly those who had not received introductory training, including real estate officials in two districts we contacted. In response to feedback from the 2007 conference, RESNC is planning to offer hands-on training at the next conference in May 2008. Nonetheless, we found gaps in training among REMIS users within the four districts we contacted. Specifically,

- of the approximately 63 daily users of REMIS, about 24 have not received introductory, hands-on training, while 39 have received the training; and
- none of the daily REMIS users have received periodic refresher training.

The lack of introductory and periodic refresher training that includes hand-on, computer-based training can hinder efforts to ensure that all districts consistently process land disposals in REMIS. Introductory training is particularly important for new employees, such as systems administrators and other officials who enter information into the database, because the disposal process in REMIS requires users to enter specific data in multiple screens. Periodic refresher training is equally important for experienced staff, especially because key aspects of the land disposal process in REMIS have changed in recent years. We are encouraged that the Corps is planning to expand the scope of training at its next informational conference in May 2008.

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## Conclusions

Having accurate, reliable real property data is important for agencies to cost effectively manage the properties they need and to identify unneeded properties that they can dispose of and avoid unnecessary costs to the government. The Corps, like other federal landholding agencies, must determine what real property it owns, what it needs, and what it costs to manage its real property, as well as develop and implement asset management plans and dispose of unneeded property. To measure progress toward the administration's real property disposal goal, OMB and the Federal Council are using disposal data to track how much property federal agencies have disposed of and measure the government's annual progress toward disposing of its unneeded property.

However, land disposal data in the Corps' real property database—REMIS—are unreliable. Specifically, REMIS does not provide reliable information on the Corps' civil works land disposals from fiscal year 1996 through fiscal year 2006, or on the land that the Corps owned as of September 30, 2006. Problems contributing to unreliable REMIS land disposal data included the lack of effective internal control, a database design that did not follow a best practice and, therefore, resulted in error-

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prone data, poor data entry practices that led to missing disposal data and inaccurate disposal dates, unclear guidance for processing land disposals in REMIS, and limited introductory and refresher training in REMIS for all users of the database, including new and experienced staff. In addition, 89 percent of all land disposal records in REMIS were missing disposal dates, while many other land disposal dates were inaccurate. Although the Corps is taking actions to address some data deficiencies, such as implementing additional training in some areas, these actions provide little assurance that REMIS disposal data are reliable. Unreliable land disposal data impair the usefulness of REMIS as a record of current inventory, as a valid tool for measuring progress toward the administration's disposal goal, and as a source of data that would be useful to Corps decision makers for budgeting and strategic land management purposes.

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## Recommendations for Executive Action

To improve the reliability of REMIS land disposal data for determining how much land the Corps currently owns and for budgeting and strategic land management purposes, we recommend that the Secretary of Defense direct the Commanding General and Chief of Engineers of the U.S. Army Corps of Engineers to take the following five actions:

- implement effective internal controls, including segregation of duties and review, over the REMIS land disposal process by incorporating such control into the Corps' real estate policies at those districts and divisions identified in this report and others, where appropriate;
- implement the data normalization best practice in the REMIS database with respect to disposal dates;
- correct the disposal records that were created in REMIS as part of the efforts to adjust the inventory;
- issue clear guidance for entering land disposal dates in the REMIS land disposal process; and
- provide and require introductory and periodic refresher training that covers how to correctly enter land disposal dates in REMIS.

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## Agency Comments and Our Evaluation

We provided a draft of this report to DOD for review and comment. DOD agreed with all five of our recommendations aimed at improving REMIS land disposal data and outlined its planned actions to address the recommendations. Specifically, DOD stated that the Corps is designing a

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REMIS modernization program that, when implemented, is to have in place internal controls, such as quality assurance and control processes, segregation of duties, and inspection and review phases. In addition, according to DOD, the Corps is planning to: (1) check the progress that districts are making in updating historical disposal records; (2) issue clearer guidance for entering disposal dates, as well as identifying the required REMIS screens and data fields; and (3) provide annual REMIS training to Corps districts. Further, DOD agreed with our recommendation to normalize the database. To reduce the adverse affects of the current database's design problem, DOD said that guidance is to be updated, and special emphasis is to be placed on this module during training. DOD indicated that the Corps would study and implement methods to eliminate the redundant and cumbersome data entry that causes the data normalization problem. However, updating guidance and improving training does not address the fundamental problem we found related to data normalization issues because this approach continues to rely on people consistently entering disposal dates. The key to solving the database problem will be the Corps' implementation of methods it identifies to eliminate duplicate and redundant data entry. We reprinted DOD's comments in appendix II. The Corps also provided technical comments, which we incorporated, as appropriate.

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We are sending copies of this report to the Secretary of Defense, the Commanding General and Chief of Engineers of the U.S. Army Corps of Engineers, and interested congressional committees. We also will make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at [www.gao.gov](http://www.gao.gov).

If you have any questions about this report, please contact me at (202) 512-2834 or at [dornt@gao.gov](mailto:dornt@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Staff who made key contributions to this report are listed in appendix III.



Terrell G. Dorn  
Director, Physical Infrastructure Issues

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# Appendix I: Objective, Scope, and Methodology

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Our objective was to determine whether the U.S. Army Corps of Engineers' (Corps) real property database—Real Estate Management Information System (REMIS)—could provide reliable information on the civil works land that the Corps disposed of from fiscal year 1996 through fiscal year 2006, or on the civil works land the Corps owned as of September 30, 2006.

To address this objective, we reviewed relevant federal laws and executive orders related to the Corps' disposal of landholdings, as well as its applicable real property policies, guidance, and user/training manuals on the processing of civil works land disposals in REMIS. We reviewed a number of our previous reports on real property management, the Department of Defense Inspector General's work on the Corps' real property inventory, and technical papers on database normalization. We also reviewed and analyzed the Corps' *Asset Management Plan* and *Three Year Timeline*—an action plan for implementing the asset management plan and demonstrating the use of real property inventory data for decision making—to determine the extent to which the Corps used REMIS land disposal data. To gain a more complete understanding of the Corps' disposal process and of REMIS from fiscal year 1996 through fiscal year 2006, we contacted Corps headquarters officials from the Offices of Real Estate, Corporate Information, and the Chief Counsel; Corps field officials from the Real Estate Systems National Center in Mobile, Alabama, which manages REMIS; and officials of the contractor that maintained REMIS and supported its users. Also, Corps headquarters and field officials briefed us on the Corps' land acquisition and disposal process, legal authorities, applicable executive orders, disposal policies, *Asset Management Plan*, *Three Year Timeline*, and the REMIS land disposal process.

To gain a better understanding of the REMIS land disposal process, we contacted 4 of the Corps' 32 district offices—Baltimore, Maryland; Fort Worth, Texas; Omaha, Nebraska; and Los Angeles, California—with REMIS databases. We selected 3 of these 4 districts because their land disposals accounted for about 82 percent of the acreage that the Corps disposed of from fiscal year 1996 through fiscal year 2006, according to REMIS data. We selected the fourth district—Los Angeles—because it had recently completed an inventory of its entire real property holdings. We also contacted three Corps divisions—North Atlantic, New York, New York; Northwestern, Portland, Oregon; and Southwestern, Dallas, Texas—that oversee these districts. In each of these districts, we contacted key district officials responsible for real property management and REMIS. We also contacted the key officials who were responsible for oversight of real



property management and of REMIS in these four districts. Additionally, we visited the Baltimore and Los Angeles Districts because, according to Corps headquarters officials, the officials in these districts could provide insights into REMIS and its accuracy. Specifically, the headquarters officials said that the officials in the Baltimore District were very knowledgeable about the REMIS disposal process and that, as noted, officials in the Los Angeles District had recently completed an inventory of the district's entire real property holdings. At each location, we observed the REMIS disposal process and reviewed the supporting documentation and guidance.

To further address our objective, although we did not have direct access to REMIS, we took several steps to assess the reliability of REMIS disposal data. We contacted the REMIS contractor to gain a good understanding of the REMIS database, the disposal data that it stores, the manner districts input data into the database, and the districts' ability to query the REMIS database. We requested and obtained from the Corps' contractor data files of (1) REMIS land tract disposals from fiscal year 1996 through fiscal year 2006, (2) the Corps' fiscal year 2006 Federal Real Property Profile submission for land disposals, (3) land disposals used for the *Three Year Timeline* for 1996 through 2006, and (4) each district's current real property holdings in REMIS. These data identified individual land tract disposals for each district, including specific information about each disposal, such as the real property identification number for each tract, date of disposal, acreage, and type of disposal, among other things. To assess the reliability of these REMIS data, we performed electronic testing to identify missing data, dates outside the time frame of our request, and duplicates. We obtained and reviewed the queries that the contractor used to generate the data that we requested. We focused part of our assessment on land disposals that occurred during fiscal years 2005 and 2006—the years, when according to the data, the bulk of land disposals occurred—and specifically focused on the land disposal dates. We compared the land disposal data files to identify inconsistencies among the disposals. At the district level, we had the Baltimore, Fort Worth, and Omaha Districts determine whether our REMIS land tract disposal data files for these districts were accurate. Similarly, we had the Baltimore and Los Angeles Districts determine whether our REMIS file for their districts' real property holdings were accurate. Based on this work, we found that the REMIS land disposal data were not reliable because of inconsistencies among the disposal data files we analyzed, a significant number of missing disposal dates, and inaccurate current inventory data.

In addition, we assessed the Corps' internal controls over the recording of land disposals in REMIS. We obtained the applicable Corps policies, procedures, and guidance and compared them with standards for internal control in the federal government and other control guidance related to control activities, environment, and training. We also had follow-up discussions with Corps officials about how internal controls are interpreted and implemented. In assessing the adequacy of internal controls, we used the criteria in GAO's *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#), November 1999. These standards, issued pursuant to the requirements of the Federal Managers' Financial Integrity Act of 1982 (FMFIA), provided the overall framework for establishing and maintaining internal control in the federal government. Also pursuant to FMFIA, the Office of Management and Budget issued Circular A-123, revised December 21, 2004, to provide the specific requirements for assessing the reporting on internal controls. Internal control standards and the definition of internal control in Circular A-123 are based on GAO's *Standards for Internal Control in the Federal Government*.

# Appendix II: Comments from the Department of Defense



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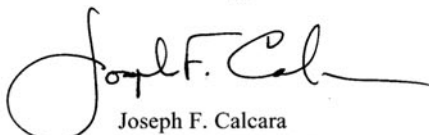
14 APR 2008

Mr. Terrell G. Dorn  
Director, Physical Infrastructure  
U.S. Government Accountability Office  
441 G Street, N.W.  
Washington, DC 20548.

Dear Mr. Dorn:

This is the Department of Defense (DoD) response to the GAO draft report, "FEDERAL REAL PROPERTY: Corps of Engineers Needs to Improve the Reliability of Its Real Property Disposal Data," dated March 14, 2008 (GAO Code 545050/GAO-08-349). The Department concurs with each of the report's five specific recommendations. A more detailed comment for each recommendation is provided as an enclosure.

Sincerely,

  
Joseph F. Calcara  
Deputy Assistant Secretary of the Army  
(Installations and Housing)  
OASA(I&E)

Enclosure

GAO DRAFT REPORT - DATED MARCH 14, 2008  
GAO CODE 545050/GAO-08-349

**“FEDERAL REAL PROPERTY: Corps of Engineers Needs to  
Improve the Reliability of Its Real Property Disposal Data”**

**DEPARTMENT OF DEFENSE COMMENTS  
TO THE RECOMMENDATIONS**

**RECOMMENDATION 1:** The GAO recommends that the Secretary of Defense direct the Commanding General and Chief of Engineers of the U.S. Army Corps of Engineers to implement effective internal control, including segregation of duties and review, over the Real Estate Management Information System (REMIS) land disposal process by incorporating such control into the Corps' real estate policies at those districts and divisions identified in this report and others, where appropriate.

**DOD RESPONSE:** Concur. In order to insure data quality and accuracy, internal controls must be implemented at the District level and monitored from Headquarters and Division levels. Headquarters U.S. Army Corps of Engineers is designing a Real Estate Management Information System modernization program which when implemented will, among other things, put in place internal controls such as quality assurance and quality control processes, segregation of duties and inspection and review phases.

**RECOMMENDATION 2:** The GAO recommends that the Secretary of Defense direct the Commanding General and Chief of Engineers of the U.S. Army Corps of Engineers to implement the data normalization best practice in the Real Estate Management Information System (REMIS) database with respect to disposal dates.

**DOD RESPONSE:** Concur. The Real Estate Systems National Center (RESNC) recognizes that the disposal process in REMIS may be unclear to users. Guidance will be updated and disseminated to the users to reflect clearer instructions regarding the disposal date to be entered, as well as the mandatory screens/fields to be filled in. Also, special emphasis will be placed on this module during training. In addition, methods will be studied and implemented to reduce redundant and cumbersome data entry.

**RECOMMENDATION 3:** The GAO recommends that the Secretary of Defense direct the Commanding General and Chief of Engineers of the U.S. Army Corps of Engineers to correct the disposal records that were created in REMIS as part of the efforts to adjust the inventory.

**DoD RESPONSE:** Concur. Once the Real Estate Management Information System (REMIS) was deployed in the early 1990's, Districts were requested to load all civil and military project data, including previous acquisitions and disposals, to reflect the entire history of the project/installation. The loading process utilized simple screens requiring a minimum amount

of data. The initial data loading effort was monumental and priority was placed on ensuring the accuracy of data concerning active assets. The entry of data concerning historic disposals was simplified and was viewed as a lower priority task. The plan was to improve the accuracy of the historical disposal data subsequent to the initial data load, subject to resources and manpower availability. The U.S. Army Corps of Engineers (USACE) Real Estate Systems National Center (RESNC) is implementing a plan to check the progress of updating the records by remotely inspecting the data and conducting site assistance visits at Districts which are failing to meet data entry goals. USACE concurs that updating the historic disposal records should be accomplished, however, the ability to quickly and completely update the historic records is limited by current workload, available funding, manpower, and incomplete records.

**RECOMMENDATION 4:** The GAO recommends that the Secretary of Defense direct the Commanding General and Chief of Engineers of the U.S. Army Corps of Engineers to issue clear guidance for entering land disposal dates in the land disposal process.

**DoD RESPONSE:** Concur. See response to Recommendation 2 above.

**RECOMMENDATION 5:** The GAO recommends that the Secretary of Defense direct the Commanding General and Chief of Engineers of the U.S. Army Corps of Engineers to provide and require introductory and periodic refresher training that covers the correct recording of land disposal dates in REMIS.

**DoD RESPONSE:** Concur. As part of the Real Estate Management Information System (REMIS) program management plan, Real Estate Systems National Center (RESNC), in conjunction with its operations and maintenance contractors and a team of subject matter experts, will be providing annual co-located training to the Districts. In addition, training will be made available via team visits to those Districts that are unable to send its employees to the annual sessions. The goal is to have provided training to every District, either at an annual session or site visit, by the end of FY10.

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# Appendix III: GAO Contact and Staff Acknowledgments

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## GAO Contact

Terrell G. Dorn, (202) 512-2834, or [dornt@gao.gov](mailto:dornt@gao.gov)

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## Staff Acknowledgments

In addition to the individual named above, Gerald P. Barnes (Assistant Director), Lindsay M. Bach, Cherry M. Clipper, Melinda L. Cordero, Elizabeth R. Eisenstadt, Colin Fallon, Kathleen A. Gilhooly, H. Brandon Haller, Vondalee R. Hunt, Chris Martin, Steve Martinez, and Joshua H. Ormond made key contributions to this report.

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